

SUGARCANE



Recommendation for use of TwinN for sugarcane crops.

TwinN is currently used on sugarcane crops in Australia and Africa where it has enabled significant reductions in the amount of nitrogen fertiliser required to produce high yields. This has a major effect on profit margins returned to producers. Much of the world's sugarcane is grown in high rainfall areas and often in soils with low nutrient retention capacity. This means that a significant proportion of the nitrogen that is applied to the crop is leached away. TwinN drives development of an improved root system (see TwinN Mechanism of Action) and this assists in more efficient capture of applied nitrogen fertilisers.

Environmental Benefits

An additional benefit of reduced nitrogen fertiliser application and better nutrient capture is that leaching of nitrogen compounds into rivers, lakes and oceans is greatly reduced.

Reduced Carbon Footprint

TwinN enables reduced application of nitrogen fertilisers, such as urea, that have a very high carbon footprint associated with their manufacture and transport. The capacity to reduce the carbon footprint associated with any cropping system is an advantage as carbon taxes are being implemented by governments around the world. This is particularly relevant when crops such as sugarcane are used to generate ethanol and have a requirement to demonstrate a net gain in carbon efficiency.

General Recommendations

Apply the normal rates of P, K and other nutrients. If these nutrients are limiting then the crop will be unable to respond to TwinN application. The amount of nitrogen fertiliser co-applied with TwinN will vary with the economics of the crop system. A recommended starting point is to apply 50% of the normal rate of N fertiliser, plus TwinN, applied once or twice. Apply the N at the same stages of the crop cycle as usual. Many producers also test, in addition, a greater reduction down to 25% of normal N. Depending on soil fertility and crop needs most systems will produce long-term sustainable high yields at between 25 – 50% of normal N inputs. **Start at 50% and work downwards.** Different soils and sugarcane crop systems will enable different reductions in chemical nitrogen application and producers should determine the optimum system for their situation.

Establishment and Growth

Apply 30U of nitrogen at planting or ratoon. Apply TwinN at 15cm (6 inches). Apply a further 30U of nitrogen midseason and re-apply TwinN just before the crop becomes too tall to apply via a boom spray.

Information for applying TwinN

Download the TwinN Crop Application Instructions and follow them carefully.

> TwinN does not make P and K or other elements. These should be added according to your normal practice.

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> Application methods should deliver the TwinN microbes onto foliage that is moist for a minimum of 3-4 hrs, or into moist soil, to enable them to establish and multiply. Once established they are resilient to normal crop conditions.

> Rehydrate TwinN strictly according to instructions.

> Apply TwinN strictly according to the Application Guidelines in the package. Failure to apply the product correctly will produce poor results.

Avoid application under dry conditions.

If using chlorinated water you must de-chlorinate it. See TwinN Crop Application Instructions Do not mix TwinN with non-compatible chemicals. For a list of compatible and non-compatible chemicals visit Compatibility Table.

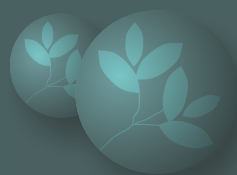
Foliar Application

Add the rehydrated TwinN to the mixing tank using at least 100 L water per ha. Apply by aerial, boom spray, or backpack. Use coarse nozzles. For row crops direct nozzles over the row (banding).

Irrigation

TwinN can be applied very easily and successfully through any irrigation system including centre pivot, drip, fertigation and any other. Application directly to the soil is fully effective.

Contact your TwinN Distributor for advice on how to maximize the convenience and efficacy of TwinN in your cropping system.



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